

## ABSTRACT

It is known that the magnetic shields, between which CPP GMR stacks are sandwiched, can be a source of AMR (anisotropic magneto-resistance) noise. This has been significantly reduced by coating both the magnetic shields with highly conductive layers. If the guidelines disclosed in the invention are followed, the read head can exhibit AMR noise reduced by about 14 to 20. Additionally, the total thickness of the read gap can be maintained to be as low as 300 to 400 Angstroms.